	А	В	С	D	E	F	G
1	Career Cluster	Program of Study	CTE Courses	TCAT Program	TCAT Units of Study	TCAT Awards	TCAT Locations
	Advanced Manufacturing	Machining Technology	Principles of Manufacturing, Principles of Machining I, Principles of Machining II, Manufacturing Practicum	Machine Tool Technology	Practical Shop Safety, Mathematical Concepts and Applications, Intrepreting Engineering Drawings, Measurement & Inspectin, Conventional /Advanced Machining, Manufacturing Materials & Processes, Lathe and Mill Competency, CNC Operations	Production Machine Tender Certificate 432 hrs/ 1 Trimester; Machine Set-up Operator Certificate 864 hrs/ 2 Trimesters; General Machinist Diploma 1728 hrs/ 4 Trimesters Machinist I Diploma- 2160 hrs/ 5 Trimesters	Athens, Chattanooga, Covington, Crossville, Crump, Dickson, Harriman, Hartsville, Hohenwald, Jacksboro, Jackson, Knoxville, Livingston, McKenzie, McMinnville, Memphis, Morristown, Murfreesboro, Nashville, Newburn, Oneida, Paris, Shelbyville, Whiteville Tool and Die: Jackson, McMinnville
	Advanced Manufacturing	Electromechanical Technology	Principles of Manufacturing, Introduction to Electromechanical, Advanced Electromechanical Technology, Manufacturing Practicum	Electronics Technology	Electronics Technology: DC Circuits AC Circuits Analog Circuits Digital Circuits Computer Electronics Industrial Electronics Electronic Shop Skills Algebra/Trigonometry Home Security	Electronics Technology: Electronics Assembler Certificate 432 Hrs/1 Trimester  Electronics Tester Certificate 864 Hrs/2 Trimesters  Electronics Technician Apprentice Diploma 1296 Hrs/ 3 Trimesters  Electronics Technician Diploma 2160 Hrs/5 Trimesters	Electro-Mechanical Technology: Hohenwald Electronics Technology: Athens, Chattanooga, Crump, Elizabethton, Hohenwald, Livingston, McKenzie, McMinnville,Memphis, Newbern, Oneida

	А	В	С	D	Е	F	G
1	Career Cluster	Program of Study	CTE Courses	TCAT Program	TCAT Units of Study	TCAT Awards	TCAT Locations
4	Advanced Manufacturing	Mechatronics	Principles of Manufacturing, Digital Electronics, Mechatronics I, Mechatronics II or Manufacturing Practicum	Mechatronics, Electro- Mechanical Technology, Industrial Maintenance, Industrial Electronics	Mechanics, Fluid Power, Math and	Maintenance Electrician Diploma 4 Trimesters, Electro-Mechanical Technician 5 Trimesters Industrial Maintenance: Electrician Helper Certificate 432 hrs/ 1 Trimester;	Mechatronics: Dickson, Nashville Electro-Mechanical Technology: Hohenwald Industrial Maintenance: Athens, Chattanooga, Covington, Crump, Dickson, Harriman, Hartsville, Hohenwald, Jackson, Knoxville, Livingston, McKenzie, McMinnville, Memphis, Morristown, Murfreesboro, Nashville, Newbern, Paris, Pulaski, Shelbyville, Whiteville Electronics Technology: Athens, Chattanooga, Crump, Elizabethton, Hohenwald, Livingston, McKenzie, McMinnville, Memphis, Newbern, Oneida Auto Mechatronics: Chattanooga
5	Advanced Manufacturing	Welding	Principles of Manufacturing, Welding I, Welding II, Manufacturing Practicum	Welding	Safety & Orientation, Basic Welding Procedure, Advanced Welding Procedure, Technical Information, Shop Management, Basic Math & Blueprint Reading,	Tack Welder Certificate-432 hrs/ 1 trimester; Assembler/Production Welder 864 hrs/2 trimesters; Combination Welder Diploma-1296 hrs/ 3 trimesters	Athens, Chattanooga, Covington, Crossville, Crump, Elizabethton, Harriman, Hartsville, Jacksboro, Jackson, Knoxville, McKenzie, McMinnville, Memphis, Morristown, Nashville, Oneida, Pulaski. Shelbvville. Whiteville

	А	В	С	D	E	F	G
1	Career Cluster	Program of Study	CTE Courses	TCAT Program	TCAT Units of Study	TCAT Awards	TCAT Locations
6	Architecture and Construction	Residential and Commercial Construction	Fundamental of Construction, Residential & Commercial Construction I, Residential & Commercial Construction II, Construction Practicum	Building Construction, Industrial Electricity, Masonry	Building Construction: Carpentry, construction math, hand and power tools, framing & finishing, concrete management, rigging & equipment practices, site preparation, foundations, formwork, advanced finishing systems, electricity, conduit bending, control systems, motor controls, transformers, specialty locations, project planning, plumbing, blueprint reading, water supply, work ethics, technology foundations Industrial Electricity:  Modern Residential Wiring, Hands-On Residential Wiring, AC Theory, DC Theory, Solid State Electronics, Commercial Wiring, Industrial Wiring, Motor Controls, Applied Electricity Masonry: general skills, basic trade skills, level plumb, square	1728 hours/ 4 trimesters INDUSTRIAL ELECTRICITY: Class 2 Electrician Apprentice-864/ 2 Trimesters, Class 1 Electrician	Building Construction: Crossville, Livingston, Memphis, Nashville, Pulaski Residential Building Maintenance: Paris Brick Block and Stone Masonry: Memphis, Morristown
7	Architecture and Construction	Mechanical, Electrical, & Plumbing (MEP) Systems	Fundamentals of Construction, MEP Systems, HVAC, Electrical, or Plumbing, Construction Practicum	HVAC	Three-phase motors, Pictorial Diagrams, Pertinent Relays, Electrical Devices, Components, Schematic Wiring Diagrams, Atomic Structure & Ohm's Law, Soldering & Brazing, Flaring & Swaging, Heat-Load Calculations, Duct Sizing, Compressor Installation, System Evacuation,	Certificate 432 hrs/ 1 Trimester,  Domestic Unit Repair Technician Certificate 864 hrs/ 2 Trimesters, Refrigeration Technician Diploma 1296 hrs/ 3 Trimesters, Environmental Control Systems	Chattanooga, Covington, Crossville, Crump, Dickson, Elizabethton, Hartsville, Jackson, Knoxville, McKenzie, Memphis, Morristown, Murfreesboro, Nashville, Newbern, Pulaski, Shelbyville, Whiteville

	А	В	С	D	E	F	G
1	Career Cluster	Program of Study	CTE Courses	TCAT Program	TCAT Units of Study	TCAT Awards	TCAT Locations
8	Arts, Audio/Visual Technology, & Communications	Digital Arts & Design	Digital Arts & Design I, Digital Arts & Design II, Digital Arts & Design III, Applied Arts Practicum and/or AP Studio Art	Graphic Design	computer concepts, electronic presentations, intro to visual art and design, graphic production technology, typography, work ethic, identity, branding, and logo design, digital imaging, digital illustration, digital publishing, designing for print/electrionic publishing, digital photography, business of graphic design, portfolio development, HTML, web graphics, site building,	Graphic Design Technician Certificate 432 hrs/ 1 Trimester; Web Design Technician Certificate 864 hrs/ 2 Trimesters; Graphic Design & Web Developer Diploma 1296 hrs; Digital Graphic Illustrator/Designer Diploma 1728 hrs; Web Graphic Designer 1728 hrs	Crump, Memphis, Morristown
9	Business Management & Administration	Business Management	Intro to Business & Marketing, Business Communication, Business Mgmt, Business & Entrepreneurship Practicum	Technology/ Administrative	nultimedia/animation Practicum Orientation, office technology, keyboarding, office procedures, computer essentials, word processing, spreadsheet applications, employability skills, accounting, payroll, computerized accounting, business communications, customer service, financial functions, Orientation, office technology,	General Office Assistant Certificate- 432 hrs/ 1 Trimester; Office Software Specialist Certificate2 Trimesters; Administrative Assistant Diploma- 3 Trimesters; Accounting Assistant Diploma3 Trimesters	All TCATS
10	Business Management & Administration	Office Management	Computer Applications, Business Communications, Business Mgmt, Advanced Computer Apps	Business Systems Technology	keyboarding, office procedures, computer essentials, word processing, spreadsheet applications, employability skills, accounting, payroll, computerized accounting, business communications, customer	General Office Assistant Certificate- 432 hrs/ 1 Trimester; Office Software Specialist Certificate2 Trimesters; Administrative Assistant Diploma3 Trimesters; Accounting Assistant Diploma3 Trimesters	All TCATS
11	Business Management & Administration	Health Services Administration	Intro to Business & Marketing, Health Science Education, Health Information Tech, Business & Entrepreneurship Practicum	Medical Office Information Technology, Health Information Technology	Records, Practice Partner  Application, Employability Skills  Application, Employability Skills	<b>Health Information Technician</b> Diploma 648 hrs	Medical Office: Knoxville Health Information Technology: Crump, Memphis

## Program of Study Alignment for TCAT and TDOE

	Α	В	С	D	E	F	G
1	Career Cluster	Program of Study	CTE Courses	TCAT Program	TCAT Units of Study	TCAT Awards	TCAT Locations
12	Education & Training	Early Childhood Education (K-4)	Fundamentals of Education, Early Childhood Education Careers II, Teaching as a Profession II, Teaching as a Profession III	Early Childhood	Music & Creative Movement, Math & Science, Health & Safety, Professionalism, Parenting, Clinical Practicum, Theory of Play, Nutrition, Developmental Assessment,	Child Care Attendant Certificate 432 hrs/ 1 Trimester; Child Care Assistant Certificate 864 hrs/ 2 Trimesters; Child Care Leader Diploma 1296 hrs/ 3 Trimesters	Hohenwald, Nashville, Paris
13	Finance	Accounting	Intro to Business & Marketing, Accounting I, Accounting II, Statistics	Administrative Office Accounting	Classroom Environment. Child Orientation, office technology, keyboarding, office procedures, computer essentials, word processing, spreadsheet applications, employability skills, accounting, payroll, computerized accounting, business communications, customer service. financial functions.	General Office Assistant Certificate- 432 hrs/ 1 Trimester; Office Software Specialist Certificate2 Trimesters; Administrative Assistant Diploma- 3 Trimesters; Accounting Assistant Diploma3 Trimesters	All TCATS

	А	В	С	D	Е	F	G
1	Career Cluster	Program of Study	CTE Courses	TCAT Program	TCAT Units of Study	TCAT Awards	TCAT Locations
1.	Health Science	Nursing Services	Health Science Ed, Medical Therapeutics, Anatomy & Physiology, Nursing Education	Medical	Practical Nursing: Basic Nursing, Anatomy & Physiology, Nutrition, Drug Calculations, Nursing Fundamentals, Medical-Surgical Nursing, Obstetrics, Mental Health, Pediatrics, Advanced PVR, Clinical Rotations, Work Ethics Medical Assistant: Orientation/ Psychology, Anatomy & Physiology/ Medical Terminology, EMR, Administrative Procedures, Clinical Procedures, Math for Meds, Pharmacology, Phlebotomy, Career Preparations, Certification Exam Review, Externship Patient Care Technician: Orientation, Work Ethics, Nursing Assistant, Medical Office Assistent, Phlebotomy, Work Ethics, Electrocardiography, Advanced Patient Care Surgical Technology: Terminology, Microbiology, Instrumentation, Clinical Practice,	Practical Nursing: Nursing Technician 532 hrs plus 60 hrs Med Surge clinicals, Practical Nursing Diploma 1296 hrs/ 3-5 Trimesters Medical Assistant: Medical Assistant Diploma 1296 hrs Patient Care Technician: Patient Care Technician Diploma 864 hrs, Certified Nurse Technician 120 hrs Surgical Technology: Surgical Technologist Diploma 1296 hrs	Practical Nursing: Athens, Chattanooga, Covington, Crossville, Crump, Dickson, Eliabethton, Harriman, Hartsville, Hohenwald, Jacksboro, Jackson, Knoxville, Livingston, McKenzie, Memphis, Morristown, Murfreesboro, Nashville, Newbern, Oneida, Paris, Pulaski, Ripley, Shelbyville, Whiteville Medical Assistant: Chattanooga, McMinnville Surgical Technology: Chattanooga, Crossville, Hohenwald, Jackson, Knoxville, Murfreesboro Patient Care Technology: Hartsville, Paris, Ripley, Shelbyville

	А	В	С	D	Е	F	G
1	Career Cluster	Program of Study	CTE Courses	TCAT Program	TCAT Units of Study	TCAT Awards	TCAT Locations
15	Health Science	Clinical Services	Health Science Ed, Medical Therapeutics, Dental Science or Pharmacological Science, Anatomy & Physiology or Clinical Internship	Dental Assistant, Pharmacy, Phlebotomy	Dental Assisting: Orientation, Anatomy & Physiology, Embryology & Histology, Microbiology & Infection Control, Oral Pathology, Oral Health Education, Management of Dental Emergencies, Communication & Psychology, Clinical Assisting, Therapeutics, Dental Materials, Dental Radiology, Ethics, Practice Management, Externship Pharmacy Technician: Keyboarding, Top Drugs, Law & HIPAA, Pharmacy Math, Third Party Reimbursement, Pharmacy Practice, Pharmacology, Career Readiness, Clinical Training & PTCE Prep Phlebotomy: Safety & Infection Control, Customer Service, Medical Terminology, Anatomy & Physiology, Math/ Calculations, Phlebotomy & Collection Procedures, CPR Training, Clinical Training	Dental Assisting: Diploma 1296 hrs/ 3 Trimesters Pharmacy Technician: Diploma 1296 hrs/ 3 Trimesters Phlebotomist: 432 hrs	Dental Assistant: Dickson, Knoxville, Memphis, Murfreesboro, Nashville Dental Lab Technology: Memphis, Nashville Pharmacy: Livingston, Memphis, Murfreesboro Phlebotomy: Knoxville, Memphis, Murfreesboro, Nashville
16	lourism	Culinary Arts	Culinary Arts I, II, III, and IV	CulinaryHigh School Only	Intro to Food Service, Safety & Sanitation, Nutrition & Meal Planning, Tools & Equipment, Cooking Technology, Recipe Interpretation, Cooking Methods, Cold Foods, Hot Foods, Baking Skills, Pastry Skills, Cost Control, Purchasing & Inventory, Table & Beverage Service, Marketing the Menu.	Food Service Technician Certificate 264 hrs, Food Production Technician Certificate 1086 hrs, Culinary Arts Technician Certificate 1296 hrs.	McMinnville, Hartsville

## Program of Study Alignment for TCAT and TDOE

	А	В	С	D	Е	F	G
1	Career Cluster	Program of Study	CTE Courses	TCAT Program	TCAT Units of Study	TCAT Awards	TCAT Locations
17	Education & Training	Early Childhood Education Careers	Early Childhood Education Careers I, II, III, and IV	Child Development	Orientation, Literature, Family Dynamics & Community Involvement, Guidance & Behavior, Music & Creative Movement, Math & Science, Health & Safety, Professionalism, Parenting, Clinical Practicum, Theory of Play, Nutrition, Developmental Assessment, Classroom Environment, Child Development	Child Care Attendant Certificate 432 hrs/ 1 Trimester; Child Care Assistant Certificate 864 hrs/ 2 Trimesters; Child Care Leader Diploma 1296 hrs/ 3 Trimesters	Hohenwald, Nashville, Paris
18	Human Services	Dietetics and Nutrition	Introduction to Human Studies, Nutrition across the Lifespan, Nutrition Science & Diet Therapy, Human Services Practicum	Dietary Management	Management of Foodservice, Nutrition/ Medical Nutrition Therapy, Sanitation & Food Safety, Human Resource Management, Career Skills	Dietary Aide 4 mths, Foodservice Technician 4 mths, Dietary Manager 8 mths	, ,
19	Human Services	Cosmetology	Principles of Cosmetology, Design Principles, Chemistry of Cosmetology, Entrepreneurship	Cosmetology, Aesthetics	Safety & Orientation; General Sciences, Hair Care, Skin Care, Nail Care, Instructor Training	Shampoo Technician Certificate 300 hours/ 1 Trimester, Cosmetologist Diploma 1500 hrs/ 3.5 - 5 Trimesters,	Cosmetology: Chattanooga, Dickson, Harriman, Hartsville, Hohenwald (diploma), Knoxville, Livingston, Memphis, Murfreesboro, Nashville, Oneida (diploma), Paris Aesthetics: Chattanooga, Nashville Manicurist: Chattanooga

	А	В	С	D	E	F	G
1	Career Cluster	Program of Study	CTE Courses	TCAT Program	TCAT Units of Study	TCAT Awards	TCAT Locations
20	Human Services	Barbering	Barbering I, II, III, Entrepreneurship	Barbering	Bacteriology & Sanitation, Skin Care, Bacteriology & Sanitation, Shampoos & Rinses, Manicure & Nail Care; Haircoloring, Tinting & Dyeing; Hair, Skin & Scalp Properties & Treatment; Disorders of Hair, Skin & Scalp; Anatomy & Physiology; Elementary Chemistry; Massaging & Manipulating; History & Professional Image; Barber Implements; Hairstyling; Hairpieces; Shaving; Licensing Laws: Management: Orientation & Safety, Technology	<b>Barber Technician</b> Certificate 340 hrs, <b>Master Barber</b> Diploma 1500 hrs	Memphis
21	Information Technology	Coding	Computer Science Foundations, Coding I & II, Coding Practicum	Computer Information Technology	Foundations, Keyboarding, Computer Concepts, Mobile Computing, Operating Systems, Applications, Biometrics, Hardware Troubleshooting, CompTIA A + Certification Prep, Comp TIA Network +, Advanced Networking, Microsoft MCTS, ECCouncil	hrs/ 1 Trimester, Security Specialist Certificate 648 hrs, Network Technician Certificate 648 hrs, Wireless Specialist Technician Certificate 864 hrs/ 2 Trimesters; Microcomputer Specialist Diploma 1296 hours; IT Specialist Diploma 1728 hrs; IT Specialist Coordinator	Covington, Crossville, Crump, Dickson, Elizabethton, Harriman, Hartsville, Hohenwald, Jacksboro, Jackson, Knoxville, Livingston, McKenzie, McMinnville, Memphis, Morristown, Murfreesboro, Nashville, Newbern, Oneida, Paris, Ripley, Shelbyville, Whiteville
22	Information Technology	Networking Systems	Cabling & Internetworking or IT Clinical Internship	Computer Information Technology	CNDA/CFH Advanced Wireless Orientation & Safety, Technology Foundations, Keyboarding, Computer Concepts, Mobile Computing, Operating Systems, Applications, Biometrics, Hardware Troubleshooting, CompTIA A + Certification Prep, Comp TIA Network +, Advanced Networking, Microsoft MCTS, ECCouncil CNDA/CFH Advanced Wireless	Diploma 2160 hrs Desktop Technician Certificate 432 hrs/ 1 Trimester, Security Specialist Certificate 648 hrs, Network Technician Certificate 648 hrs, Wireless Specialist Technician Certificate 864 hrs/ 2 Trimesters; Microcomputer Specialist Diploma 1296 hours; IT Specialist Diploma 1728 hrs; IT Specialist Coordinator Diploma 2160 hrs	Covington, Crossville, Crump, Dickson, Elizabethton, Harriman, Hartsville, Hohenwald, Jacksboro, Jackson, Knoxville, Livingston, McKenzie, McMinnville, Memphis, Morristown, Murfreesboro, Nashville, Newbern, Oneida, Paris, Ripley, Shelbyville, Whiteville
23	Information Technology	Web Design	•	Digital Graphic Design, Web		Graphic Design Technician Certificate 432 hrs/ 1 Trimester; Web Design Technician Certificate 864 hrs/ 2 Trimesters; Graphic Design & Web Developer Diploma	Crump, Dickson, Hohenwald, Memphis, Morristown Web Design: Nashville

	А	В	С	D	Е	F	G
1	Career Cluster	Program of Study	CTE Courses	TCAT Program	TCAT Units of Study	TCAT Awards	TCAT Locations
24	Transportation, Distribution, & Logistics	Automotive Maintenance and Light Repair	Maintenance and Light Repair I, II, III, & IV	Automotive Technology	Safety & Orientation, Engine Repair, Transmissions & Transaxles, Manual Drive Train and Axles, Suspension & Steering, Brakes, Electrical Systems, Heating & Air Conditioning, Engine Performance	Automatice Transmission/Transaxle Certificate 234 hrs, Manual Drive Train and Axles Certificate 192 hrs, Suspension & Steering Certificate 180 hrs, Brake Systems Certificate204 hrs, Electrical Systems Certificate 450 hrs, Heating and Air Conditioning Certificate, Engine Performance Certificate 432 hrs, Automotive Technician	Shelbyville, Whiteville <b>Diesel</b>
25	ii)istriniition & I	Automotive Collision Repair	Introduction to Collision Repair, Collision Repair Non-structural, Painting & Refinishing, Damage Analysis, Estimating, & Customer Service		Safety & Orientation, Related Math, Non-Structural Analysis & Damage Repair, Structural Analysis & Damage Repair, Mechanical & Electrical Components	Collision Repair Helper Certificate 432 hrs/ 1 Trimester, Structural/Nonstructural Repair Technician Certificate 864 hrs/ 2 Trimesters, Collision Repair Assistant Diploma 1296 hrs/ 3 Trimesters, Collsion Repair Technician Diploma 1728 hrs/ 4 Trimesters	Collision Repair: Athens, Chattanooga, Crossville, Crump, Jackson, Knoxville, Livingston, Memphis, Nashville, Oneida, Paris, Shelbyville Automotive Technology: Athens, Chattanooga, Covington, Crossville, Dickson, Elizabethton, Harriman, Hartsville, Hohenwald, Jacksboro, Jackson, Knoxville, Livingston, McKenzie, McMinnville, Memphis, Morristown, Murfreesboro, Nashville, Newbern, Oneida, Shelbyville, Whiteville Diesel Equipment: Chattanooga, Dickson, Elizabethton, Harriman,
23					Aircraft iviecnanics: Phase I		DICKSOII, EIIZADELIILOII, HAITIIIIAN,
26	Transportation, Distribution, & Logistics	Aviation Flight	Introduction to Aerospace, Aviation I & II	Aircraft Mechanics, Aviation Maintenance	General, Phase IIAviation Electricity, Phase IIIAirframe Structures, Phase IVAirframe Systems, Phase V-Powerplant Reciprocating Engines, Phase VI	Airframe Mechanic Diploma 1296 hrs, Powerplant Mechanic Diploma 1296 hrs, Airframe & Powerplant Mechanic Diploma 1944 hrs	Memphis, Morristown, Nashville